**Investigation of the applicability of the attentional control theory to socially anxious children aged between 8 and 12:**

**Evidences from electrophysiological data**

Erika WAUTHIA, Fabien D’HONDT, Wivine BLEKIC, Laurent LEFEBVRE, Laurence RIS, & Mandy ROSSIGNOL

Cognitive models of social anxiety disorder suggest that the disorder is caused and maintained by a biased attentional processing in favor of threat. These attention biases (AB) are thought to arise from deficits in attentional control that may not be behaviorally observable due to a compensating recruitment of cognitive resources. This research aimed to evaluate the applicability of this theory to high (HSA) and low (LSA) socially anxious children aged between 8 and 12.

Children completed (i) a dot probe task (DPT), (ii) an emotional spatial cueing task (SCT) and (iii) an antisaccade task (AST), all requiring them to detect targets following neutral and emotional faces. Reaction times (RTs) and electrophysiological data were recorded throughout the tasks.

Results failed to demonstrate effects of social anxiety on RTs. However, principal components analyses (PCA) on EEG data revealed for HSA children: (i) increased P2 (p=.045), P3a (p=.035), P3b (p=.001) for disgusted faces in the DPT; (ii) increased N2 and P3a amplitudes for disgusted faces in the SCT, (iii) increased P2 (p=.001) and P3 (p=.026) for angry faces, particularly in the antisaccade condition during the AST.

Our results allow to confirm the assumption of the attentional control theory stating that HAS children would recruit more neural resources to achieve an attentional task similarly as their healthy peers. They also confirm the idea of attentional control deficits in this population leading to disengagement impairments from threat and inhibition difficulties.